

U. S. DEPARTMENT OF COMMERCE
BUREAU OF STANDARDS

STAPLE VITREOUS CHINA PLUMBING FIXTURES

COMMERCIAL STANDARD CS20-30



ELIMINATION OF WASTE
Through
SIMPLIFIED COMMERCIAL PRACTICE

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These present in detail the development of programs to eliminate unnecessary variety in sizes, dimensions, styles, and types of over 100 commodities. They also contain lists of associations and individuals who have indicated their intention to adhere to the recommendations. These simplified schedules, as formulated and approved by the industries, are indorsed by the Department of Commerce.

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U. S. DEPARTMENT OF COMMERCE

R. P. LAMONT, Secretary

BUREAU OF STANDARDS

GEORGE K. BURGESS, Director

STAPLE VITREOUS CHINA PLUMBING FIXTURES

COMMERCIAL STANDARD CS20-30

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COMMERCIAL STANDARD CS20-30

ACCEPTORS

ASSOCIATIONS

American Ceramic Society, Columbus, Ohio.
 American Society of Sanitary Engineering, Washington, D. C.
 Associated General Contractors of America, Washington, D. C.
 Central Supply Association, Chicago, Ill.
 Eastern Supply Association, New York, N. Y.
 Institute of Manufacturers of Vitreous China Plumbing Fixtures, Chicago, Ill.
 Maine State Master Plumbers' Association, Falmouth Foreside, Me.
 National Association of Building Owners & Managers, Chicago, Ill.
 National Association of Master Plumbers of the United States, New York, N. Y.
 National Association of Purchasing Agents (Inc.), New York, N. Y.
 Sanitary Enamel Ware Association, Pittsburgh, Pa. (in principle).

FIRMS

Abingdon Sanitary Manufacturing Co., Abingdon, Ill.
 Abramson, Nathan, Washington, D. C.
 Adkins, Young & Allen Co., Chicago, Ill.
 Anderson Co., The, Flint, Mich.
 Bailey-Farrell Manufacturing Co., South Side, Pittsburgh, Pa.
 Baker Plumbing Co. (Inc.), Beaumont, Tex.
 Barrett Manufacturing Co., James, Boston, Mass.
 Beckman Bros., Des Moines, Iowa.
 Biggs Kurtz Hardware Co., The, Grand Junction, Colo.
 Biggs Pump & Supply Co., Lafayette, Ind.
 Blackwell Wielandy Co., St. Louis, Mo.
 Blake-Rounds Supply Co., Portland, Me.
 Blodgett Supply Co. (Inc.), The, Plattsburg, N. Y.
 Blodgett Supply Co. (Inc.), The, Burlington, Vt.
 B. O. T. Manufacturing Co., Trenton, N. J.
 Bowman Supply & Manufacturing Co. (Inc.), North Side, Pittsburgh, Pa.
 Bradley Co., J. R., Reno, Nev.

BRE Manufacturing Co., Hyde Park, Mass.
 Bruner-Fisher Supply Co. (Inc.), Houston, Tex.
 Bumsteads, Heating & Plumbing, Colorado Springs, Colo.
 Bushnell Pump Co., Bushnell, Ill.
 California Pipe & Supply Co., Los Angeles, Calif.
 Cambridge Sanitary Manufacturing Co., Cambridge, Ohio.
 Camden Pottery Co., Camden, N. J.
 Camlet, J. Thomas, Clifton, N. J.
 Canfield Supply Co., Kingston, N. Y.
 Carl's Sheet Metal Works, Charleston, S. C.
 Carman-Thompson Co., Lewiston, Me.
 Carmichael, C. V., Monitor, Ore.
 Case & Son Manufacturing Co., W. A., Buffalo, N. Y.
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 Central Railroad Co. of New Jersey, The, New York, N. Y.
 Central Supply Co., Minneapolis, Minn.
 Chandler Pump & Supply Co., Kansas City, Mo.
 Channel Co., Long Beach, Calif.
 Chapman Co., The, Detroit, Mich.
 Chicago Pottery Co., Chicago, Ill.
 City of Detroit, department of water supply, Detroit, Mich.
 Clearfield Plumbing Supply Co. (Inc.), Philadelphia, Pa.
 Cochran-Sargent Co., St. Paul, Minn.
 Collins Plumbing Supply Co., Holyoke, Mass.
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 Curtiss, A. J., Phoenix, Ariz.
 Dahn, Edward, Philadelphia, Pa.
 Dalton Supply Co., Clarks Summit, Pa.
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 Dalziel Moller Co., San Francisco, Calif.
 Dengel Co., F. R., Milwaukee, Wis.
 Depue, C. J., Towanda, Pa.
 Dericks, John H., Passaic, N. J.
 Deutz & Bro., A., Laredo, Tex.
 Diamond Match Co., The, Oswego, N. Y.
 District of Columbia, inspector of plumbing, Washington, D. C.
 Donahoe, Frederic W., Washington, D. C. (in principle).
 Douglas Co., The John, Cincinnati, Ohio.

- Drake, George H. (Inc.), Buffalo, N. Y.
 Dubuque Supply Co., R. A., St. Louis, Mo.
 Economy Pottery Co., Trenton, N. J.
 Elizabeth City Iron Works & Supply Co., Elizabeth City, N. C.
 Eljer Ohio Co., Cleveland, Ohio.
 Eljer California Co., Los Angeles, Calif.
 Englewood Plumbing Supply Co. (Inc.), Englewood, N. J.
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 Field & Shorb Co., The, Decatur, Ill.
 Fitzpatrick & Lock Co., Los Angeles, Calif.
 Florida Automobile & Gas Engine Co., Tampa, Fla.
 Frontier Water & Steam Supply Co., Buffalo, N. Y.
 Galloup Pipe & Supply Co., Battle Creek, Mich.
 Geddes Co., Henry B., West Orange, N. J.
 Gefro Supply Co., West New York, N. J.
 Globe Machinery & Supply Co., Des Moines, Iowa.
 Goeddel, A. C., San Diego, Calif.
 Grubb, H. D., Lexington, Ill.
 Gustaveson, Harry, New York, N. Y.
 Haas Co., The Philip, Dayton, Ohio.
 Hajoca Corporation, Philadelphia, Pa.
 Hallsted, H. E., Hay Springs, Nebr.
 Harris Pump & Supply Co., Pittsburgh, Pa.
 Hartford Plumbing Supply Co., Hartford, Conn.
 Hazelton Machinery & Supply Co. (Inc.), Hazelton, Pa.
 Healey Pottery Co., Trenton, N. J.
 Heap & Sons, William, Grand Haven, Mich.
 Higbro Engineering Co., Wellington, Kans.
 Hillman Plumbing Co., McCamey, Tex.
 Hobbs Supply Co., W. H., Eau Claire, Wis.
 Hoffman & Billings Manufacturing Co., Milwaukee, Wis.
 Hoggson Brothers (Inc.), New York, N. Y.
 Howard Plumbing Supply Co., Newark, N. J.
 Howe Supply Co., W. B., St. Joseph, Mo.
 Hubbard Co., The S. B., Jacksonville, Fla.
 Hunter & Co., Alfred J., Muskegon, Mich.
 Hunting Supply Corporation, Watertown, N. Y.
 Hussey & Son, W. H., New York, N. Y.
 Idaho Hardware & Plumbing Co., Boise, Idaho.
 Ideal Supply Co., Somerville, Mass.
 Ihler, J. P., Spokane, Wash.
 Inland Pipe & Supply Co., Yakima, Wash.
 Interstate Hardware & Supply Co., Bristol, Va.
 Jacobs Plumbing Supply Corporation, C. & S., Brooklyn, N. Y.
 Johnson, Roscoe A., Portland, Oreg.
 Johnson Miller Miller & Yeager, Terre Haute, Ind.
 Kansas City Pump Co., Kansas City, Mo.
 Kellogg-Mackay Co., The, Chicago, Ill.
 Keystone Pottery Co., Trenton, N. J.
 Klink & Co., N. S., Phoenix, Ariz.
 Knapp Supply Co., The, Muncie, Ind.
 Koepsell Co., J. J., Sheboygan, Wis.
 Kohler Co., Kohler, Wis.
 Kokomo Supply Co., Kokomo, Ind.
 Kramig & Co., R. E., Cincinnati, Ohio.
 Lake Shore Plumbing & Heating Supply Co., The, Cleveland, Ohio.
 Lally Co., San Francisco, Calif.
 Lambertville Pottery Co., Lambertville, N. J.
 Lange Supply Co., Pasadena, Calif.
 Larson & Son, G. A., Chicago, Ill.
 Latimer-Lloyd Co., Evanston, Ill.
 Leighton Supply Co., Fort Dodge, Iowa.
 Leopold Company (Inc.), F. B., Pittsburgh, Pa. (in principle).
 Levine, Samuel, New York, N. Y.
 MacMullen & Co., Philadelphia, Pa.
 Macy & Co. (Inc.), R. H., New York, N. Y.
 Maddock's Sons Pottery, Thos., Trenton, N. J.
 Manhattan Plumbing Supply Co., Jersey City, N. J.
 Manchester Supply Co., Manchester, N. H.
 Mansfield Sanitary Pottery (Inc.), Mansfield, Ohio.
 Marine-Galligan Co., Philadelphia, Pa.
 Martin Metal Manufacturing Co., The, Wichita, Kans.
 May Supply Co., Anderson, Ind.
 McArdle & Cooney (Inc.), Philadelphia Pa.
 McEuen, Peter F., Albuquerque, N. Mex.
 Meister Bros. Co., Tulsa, Okla.
 Merkel Bros. Co., The, Cincinnati, Ohio.
 Messer Co. (Inc.), James A., Washington, D. C.
 Midland Plumbing & Heating Supply Co., The, Chicago, Ill.
 Millar & Son Co., Charles, Utica, N. Y.
 Milwaukee Plumbing & Heating Supply Co., Milwaukee, Wis.
 Mineola Plumbing Supply Co. (Inc.), Mineola, N. Y.
 Missoula Mercantile Co., Missoula, Mont.
 Missouri Water & Steam Supply Co., St. Joseph, Mo.
 Modern Plumbing Co., Pueblo, Colo.
 Mohican Pottery Co., Philadelphia, Pa.

Morgan, William P., Ridgewood, N. J.
 Mott Co. (Inc.), J. L., Trenton, N. J.
 Mueller Co., Decatur, Ill.
 Mullaney & Co., John J., Lowell, Mass.
 Murdock Manufacturing & Supply Co., The, Cincinnati, Ohio.
 Murray, Harris M., Port Chester, N. Y.
 Nailon Corporation, Peoria, Ill.
 National City Realty Corporation, New York, N. Y.
 National-Helfrich Potteries Co., Evansville, Ind.
 Nelson Manufacturing & Supply Co., Hutchinson, Kans.
 Nelson Manufacturing Co., N. O., Edwardsville, Ill.
 Neuburger Bros. (Inc.), New York, N. Y.
 New Freedom Hardware Co., New Freedom, Pa.
 New Kensington Sanitary Pottery (Inc.), New Kensington, Pa.
 New Jersey Engineering & Supply Co., Passaic, N. J.
 Norfolk & Western Railway Co., Roanoke, Va.
 O'Connell, J. T., Newport, R. I.
 Olson Co., Ben., Tacoma, Wash.
 Oregon Short Line Railroad Co., Salt Lake City, Utah.
 Orlowitz Co., Louis B., Philadelphia, Pa.
 Pacific Plumbing & Heating Supply Co., San Francisco, Calif.
 Palmer Supply Co., Seattle, Wash.
 Peck Bros. & Co., The, New Haven, Conn.
 Peerless-Tulsa Co., Tulsa, Okla.
 Peerless-Utah Co., Salt Lake City, Utah.
 Peninsular Supply Co., Jacksonville, Fla.
 Perth Amboy Hardware Co., Perth Amboy, N. J.
 Petter Supply Co., Henry A., Paducah, Ky.
 Piers, Eber F., Ogden, Utah.
 Platts Premier Porcelain (Inc.), Santa Clara, Calif.
 Pleasantville Plumbing Supply Co., Pleasantville, N. J.
 Plumbers' Supply Co., New Bedford, Mass.
 Poe Piping & Heating Co., Greenville, S. C.
 Potomac Pottery Co., Keyser, W. Va.
 Price, F. M., Logansport, Ind.
 Pulaski Plumbing Supply Co., Brooklyn N. Y.
 Rayl Co., The, Detroit, Mich.
 Richards Manufacturing Co., Grand Rapids, Mich.
 Richmond Sanitary Co., San Francisco, Calif.
 Robinson Bros. (Inc.), Southampton, N. Y.

Rockford Brass Works, Rockford, Ill.
 Roe (Inc.), William S., Newark, N. J.
 Roedel Co., The, Zanesville, Ohio.
 Rogers-Ebert Co., Orange, N. J.
 Rom Co., The Robert, Milwaukee, Wis.
 Rossman Corporation, Beaver Falls, Pa.
 Sanitary Earthenware Specialty Co., Trenton, N. J.
 Sanitary Plumbing Supply Co., Jersey City, N. J.
 Schlossman's Sons, M., New York, N. Y.
 Seltzer, J. S., Lebanon, Pa.
 Service Supply Corporation, Philadelphia, Pa.
 Shafer Co. (Inc.), W. G., Syracuse, N. Y.
 Siemens Architectural Co., Kansas City, Mo.
 Silver & Sons (Inc.), M., Los Angeles, Calif.
 Silvers, W. C., New Smyrna, Fla.
 Small Co. (Inc.), P. A. & S., York, Pa.
 Smith & Abbott Co., The, Portland, Me.
 Smith & Hunt, Meridian, N. Y.
 Smolka Plumbing Supply Co., E., New York, N. Y.
 Smyth Donegan Co., Brooklyn, N. Y.
 Somerville Co., Thomas, Washington, D. C.
 Southland Supply Co. (Inc.), Dallas, Tex.
 Standard Pipe & Plumbing Supply Co., Kansas City, Mo.
 Standard Sanitary Manufacturing Co., Pittsburgh, Pa.
 Standard Supply Co., The, Portsmouth, Ohio.
 Sterner Co., Edwin, Flint, Mich.
 Stevens Wall Co., New Britain, Conn. (in principle).
 Stone Supply Co., The, Portland, Oreg.
 Street, W. V., Wichita, Kans.
 Sturgis Supply Co., Sturgis, Mich.
 Sullivan Co. Plumbing & Heating Supply Co. (Inc.), Liberty, N. Y.
 Summers Hardware Co., Johnson City, Tenn.
 Swank Hardware Co., Johnstown, Pa.
 Sweets Catalogue Service, New York, N. Y.
 Tacoma Plumbing Supply Co., Tacoma, Wash.
 Tampa Plumbing Supply Co., Tampa, Fla.
 Taub Plumbing Supply Co. (Inc.), Newark, N. J.
 Taylor Co., Harry C., Philadelphia, Pa. (in principle).
 Tennessee Coal Iron & R. R. Co., Fairfield, Ala.
 Thorn & Son, A. Boyd, Clearfield, Pa.
 Tomlinson Co. (Inc.), Philadelphia, Pa.
 Trant & Bro., Thomas, Hartford, Conn.

Tilghman Moyer Co., Allentown, Pa.
 Treaty Co., The, Greenville, Ohio.
 Trenton Potteries Co., The, Trenton,
 N. J.
 Trumbull Plumbing Supply Co., Warren,
 Ohio.
 Tyler, Fred W., Lincoln, Nebr. (in prin-
 ciple).
 Union City Plumbing Supply Co. (Inc.),
 Union City, N. J.
 Universal Sanitary Manufacturing Co.,
 New Castle, Pa.
 Utica Plumbing Supply Co. (Inc.),
 Utica, N. Y.
 Valley Supply Co., Elkins, W. Va.
 Van Pottery Co., Trenton, N. J.
 Veith Supply Co. (Inc.), New Orleans,
 La.
 Wagner & Sons, Michael, Chicago, Ill.
 Waldo Hardware Co., Rumford Me.
 Warren Balderston Co., Trenton, N. J.
 Weaks Supply Co., Monroe, La.
 Weekes & Son Co., John, Watertown,
 N. Y.
 Western Electric Co., New York, N. Y.

Western Metal Supply Co., San Diego,
 Calif.
 Western Plumbing Supply Co., Chicago
 Ill.
 Western Supply Co., Lincoln, Nebr.
 West Hoboken Plumbing Supply Co.,
 Union City, N. J.
 West Virginia Heating & Plumbing
 Co., Charleston, W. Va.
 Wheatland Co. (Inc.), Cedar Rapids,
 Iowa.
 Wheeling Sanitary Manufacturing Co.,
 Wheeling, W. Va.
 Wigman Co., Sioux City, Iowa.
 Wisconsin River Supply Co., Wausau,
 Wis.
 Young Supply Co., W. B., Kansas
 City, Mo.

GOVERNMENT

Federal Specifications Board (in prin-
 ciple).
 United States Veterans' Bureau, chief,
 supply division.
 War Department.

STAPLE VITREOUS CHINA PLUMBING FIXTURES

COMMERCIAL STANDARD CS20-30

[First Revision of Simplified Practice Recommendation No. 52]

On September 25, 1929, the advisory committee on standardization, with the approval of the standing committee, adopted a commercial standard for staple vitreous china plumbing fixtures. The industry has since accepted and approved for promulgation by the Department of Commerce the commercial standard shown herein.

The recommended commercial standard comprises all the recommendations and types listed in Simplified Practice Recommendation No. 52 with additions and corrections.

This recommendation is effective from March 3, 1930.

Promulgation recommended.

I. J. FAIRCHILD,
Division of Trade Standards.

Promulgated.

GEORGE K. BURGESS,
Director Bureau of Standards.

APPROVED.

R. P. LAMONT,
Secretary of Commerce.

GENERAL

1. The nomenclature, definitions, grading rules, types, sizes, dimensions, and general practices given herein are recommended as standard.

2. Types and sizes of water-closet bowls, tanks, lavatories, and urinals not specifically mentioned shall be considered as special.

3. As a standard practice, all manufacturers shall indicate standard types and sizes of staple vitreous china plumbing fixtures conforming to the commercial standard by heavy-face type in any new catalogues or literature sent out in the future. If desired, this may be supplemented by a special section of the index referring to standard types and sizes.

4. Integral traps in vitreous china water-closet bowls shall provide a water seal of not less than $2\frac{1}{2}$ inches in depth and for all other classes of vitreous chinaware, integral traps shall provide a water seal of not less than 2 inches in depth.

GRADING RULES

5. Vitreous china plumbing fixtures shall be graded in accordance with the grading rules as given herein.

6. These fixtures are made of materials mined from the earth, containing metallic elements and foreign matter which can not be entirely eliminated in practice. As they are made and finished by hand, and subjected to a high degree of heat, it is an accepted fact that they can not be regularly produced free from unimportant variations and minor blemishes.

7. Careful inspection is employed in each department of manufacture and each of the imperfections listed herein as acceptable under the "regular selection" grading is caused by some unavoidable condition in the manufacturing process. Perfection is not guaranteed nor is it commercially possible.

8. The blemishes permitted under the grading rules do not affect the utility or value of the fixture.

9. It is not intended that inspectors shall measure or count any blemishes except in case of doubt, since, with practice, dimensional limits and numbers can be readily gaged by eye.

10. The terms "regular selection" and "culls" shall be used to replace the terms "grade A" and "grade B" for grading vitreous china plumbing fixtures, as it is recognized that the terms "grade A" and "grade B" are confusing to the trade and to the consumer.

11. Ware which grades below "regular selection" shall be classified as "culls."

NOMENCLATURE AND DEFINITIONS

BLISTER.—A raised uncolored portion of the surface, $\frac{1}{32}$ (0.031) inch and less than $\frac{1}{8}$ (0.125) inch in maximum dimension.

LARGE BLISTER.—A raised uncolored portion of the surface $\frac{1}{8}$ (0.125) inch to $\frac{1}{4}$ (0.25) inch, inclusive, in maximum dimension.

BUBBLE.—An uncolored raised portion of the surface or a sand speck smaller than $\frac{1}{32}$ (0.031) inch in maximum dimension.

CRAZE.—Fine cracks in the glaze.

CULLS.—Serviceable ware which grades below "regular selection."

DISCOLORATION.—A colored spot over $\frac{1}{4}$ (0.25) inch in maximum dimension, or a sufficient number of specks or spots to give the effect of a change in color.

DULL OR EGGSHELL FINISH.—Dead or flat finish. Undeveloped glaze. A semiglazed finish with numerous very fine pinholes or slightly matted in appearance. Not glossy.

DUNT.—A hair-line fracture extending through the body, and due to strains set up in the process of manufacture.

EXPOSED BODY.—Unglazed portion $\frac{1}{16}$ (0.063) inch in maximum dimension or over.

FINISH.—Texture and condition of surface other than color.

FIRE CHECK.—Fine shallow crack in the body not covered with glaze. (When sufficiently covered with glaze as to be easily cleaned, it is not detrimental.)

FLUSHING SURFACE.—The surface which may be wet during the operation of the fixture.

PINHOLE.—Unglazed portion of body, or small hole under $\frac{1}{16}$ (0.063) inch in maximum dimension.

POLISHING MARK.—A spot not larger than $\frac{3}{8}$ (0.375) inch in maximum dimension where some minor blemish has been ground off and the surface polished.

POTTERY SQUARE.—A square 2 inches on each side. For grading purposes may be a 2-inch square hole cut in a small sheet of any flexible material, such as rubber or paper, for convenience in sliding over irregular surfaces to determine segregation.

PROJECTION.—A raised uncolored portion of the surface over $\frac{1}{4}$ (0.25) inch in maximum dimension.

REGULAR SELECTION.—First-class ware in conformity with the limitations of the grading rules.

ROUGHING IN MEASUREMENT.—Dimension from finished wall or floor to center of waste or supply opening.

SEGREGATION.—More than four spots, blisters, or pinholes in any "pottery square."

SPECK.—A colored portion less than $\frac{1}{32}$ (0.031) inch in maximum dimension. Specks less than $\frac{1}{100}$ (0.01) inch in maximum dimension, unless in sufficient number to form a discoloration, are not counted.

SPOT.—A colored portion of the surface $\frac{1}{32}$ (0.031) inch and less than $\frac{1}{8}$ (0.125) inch in maximum dimension.

LARGE SPOT.—A colored portion $\frac{1}{8}$ (0.125) inch to $\frac{1}{4}$ (0.25) inch, inclusive, in maximum dimension.

SPUD.—Threaded brass connection inserted in the vitreous china-ware.

STREAK.—A slight defect in the finish giving an appearance similar to painters' brush marks.

VISIBLE SURFACE.—The surface readily visible after installation of the fixture by an observer in normal standing position.

VITREOUS CHINA PLUMBING FIXTURES.—The term “vitreous china” shall be applied only to such plumbing fixtures as will pass the following red-ink test:

A fractured piece of material taken from any part of a vitreous china plumbing fixture, after being immersed in red anilin ink of good color strength for one hour, shall not show any discoloration through the glaze and shall not show absorption when broken to a depth greater than $\frac{1}{8}$ inch below the surface of fracture at any point.

WATER-CLOSET BOWL.—The term “water-closet bowl” is the accepted general term applicable to such fixtures.

REVERSE TRAP.—The term “reverse trap” shall be applied only to water-closet bowls having back supply; integral flushing rim; a minimum water seal of $2\frac{1}{2}$ inches; a minimum water area of $8\frac{3}{4}$ by $7\frac{1}{2}$ inches; a siphon trap way at the rear of closet which shall pass a $1\frac{1}{2}$ -inch diameter solid ball; and a minimum weight of 38 pounds.

REVERSE TRAP, WITH JET.—Same as reverse trap, with jet added.

SIPHON JET.—The term “siphon jet” shall be applied only to water-closet bowls having top supply, integral flushing rim and jet; a minimum water area of 12 by 10 inches; a minimum depth of seal of 3 inches; a reverse siphon trap way which shall pass a $2\frac{1}{8}$ -inch diameter solid ball; minimum horizontal over-all dimensions of 14 by 23 inches; and a minimum weight of 46 pounds.

WASH DOWN.—The term “wash down” shall be applied only to water-closet bowls having back supply; integral flushing rim; a minimum water area of 8 by 7 inches; a minimum water seal of $2\frac{1}{2}$ inches; a siphon trap way at the front of closet which shall pass a $1\frac{1}{2}$ -inch diameter solid ball; and a minimum weight of 34 pounds.

WASH DOWN, WITH JET.—Same as wash down, with jet added.

WATER AREA.—Elliptical area of the still water in the water-closet bowl, when filled to the top of the dam.

WAVY FINISH.—A defect in the finish having the appearance of numerous runs in the glaze; irregular or mottled.

METHOD OF GRADING WATER-CLOSET BOWLS

12. Examine the wellhole closely for excess glaze, spots, blisters, pinholes, etc. With eyes about 2 feet directly above rim, rock the bowl first to one side and then the other to an angle of about 45° , then tilt backward at the same angle, noting only the defects which can be observed in those positions. Minor blemishes which are not observed in this operation are assumed to be on unseen surfaces. Examine the remainder of the bowl for dunts, craze, or other serious defects.

13. Water-closet bowls are graded in accordance with the maximum blemishes listed. (See Table 1.)

14. Bowls having more than the maximum grading limit permissible for “regular selection” on any one blemish shall be classified as “culls.”

TABLE 1.—*Water-closet bowls*

Location	Blemish or defect	Regular selection
General.....	{ Dull or eggshell area.....	Not over 4 square inches.
	{ Wavy finish.....	Not more than 4 square inches.
	{ Excess glaze.....	Not more than 1/8 inch thick in well.
	{ Warpage.....	Not noticeably warped when seat is attached.
	{ Large blisters.....	Not more than 2.
	{ Dunts.....	None allowed.
Flushing surface.....	{ Projections.....	Do.
	{ Exposed body.....	Do.
	{ Unglazed fire check.....	Do.
	{ Spots, blisters or pinholes.....	No segregation; a total of not over 10.
Visible surface.....	{ Bubbles or specks.....	Not over 10 in one "pottery square," a total of not over 25.
	{ Exposed body.....	Not over 1/4 (0.25) inch on foot; not over 1/8 (0.125) inch; on more prominent surfaces (maximum dimension).
	{ Unglazed fire check.....	Not over 1/4 inch long.
	{ Spots, blisters and pinholes.....	No segregation; a total of not over 10.
	{ Bubbles or specks.....	Not over 5 in one "pottery square"; a total of not over 25.

METHOD OF GRADING LOW TANKS

15. Low tanks are installed at a level where blemishes are more readily visible than on water-closet bowls and although less likely to become soiled are graded about as closely for appearance. Tanks and covers are graded separately on an equal basis for segregation of blemishes. The covers shall be limited to about one-half the total blemishes permitted for tanks. No blemishes on the inside surface are counted. Minor blemishes on the outside surface, hidden by the cover, are not counted. Examination should be made with the eyes of the observer about 2 feet from the surface observed.

16. Low tanks are graded in accordance with the maximum blemishes listed. (See Table 2.)

17. Low tanks having more than the maximum grading limit permissible for "regular selection" on any one blemish shall be classified as "culls."

TABLE 2.—*Low tanks*

Location	Blemish or defect	Regular selection
General.....	{ Warpage.....	Not noticeably warped.
	{ Dunts.....	None allowed.
Visible surface.....	{ Dull or eggshell area.....	None allowed on front; not over 2 square inches on each side.
	{ Wavy finish.....	Not more than 4 square inches.
	{ Exposed body.....	Not over 1/8 (0.125) inch (maximum dimension).
	{ Unglazed fire check.....	None on front; one each side not over 1/4 inch long.
	{ Spots, blisters, or pinholes.....	No segregation; a total of not over 10.
	{ Bubbles or specks.....	Not over 5 in one "pottery square"; a total of not over 25.

NOTE.—Covers showing more than 50 per cent of the allowable number of blemishes shown in the above table are to be classified as "culls." See "method of grading low tanks."

METHOD OF GRADING VITREOUS CHINA LAVATORIES, PEDESTALS, AND LEGS

18. Since lavatories are installed at a level where blemishes are more readily noticeable than on water-closet bowls and tanks, they should be graded more closely than any other vitreous china fixture.

19. Lavatories should be examined with the eyes of observer about 2 feet from the surface observed.

20. The top of slab, front apron, inside of bowl, and face of back of lavatories with back are most important. Sides should not be subjected to the same rigid inspection.

21. Warpage tests are made at factory by use of horizontal plane, this being a level table upon which lavatory is allowed to rest, face down, and tested with thickness gages placed between lavatory and table.

22. Pedestals and legs are graded the same as water-closet bowls.

23. Pedestals and legs are not to be warped out of perpendicular line more than one-half inch. To be free from rough projections. No exposed body over one-half inch.

24. Vitreous china lavatories are graded in accordance with the maximum blemishes listed in Table 3; any vitreous china lavatory having more than the maximum grading limit permissible for "regular selection" on any one blemish shall be classified as a "cull."

TABLE 3.—*Vitreous china lavatories*

Location	Blemish or defect	Regular selection
General	Dunts	None allowed.
	Craze	Do.
	Warpage	Warpage of slab out of horizontal plane not to exceed $\frac{1}{4}$ inch on all sizes. (The same allowable deviation to apply to lavatories with back, when attached to wall.)
Service space, top of slab, inside of bowl, and front of apron.	Dull or eggshell	One allowed; not over $\frac{1}{2}$ inch.
	Exposed body	None allowed.
	Unglazed fire check	Do.
	Spots, blisters, and pinholes	No segregation; a total of not more than 4.
	Bubbles and specks	Do.
	Polishing mark	Not more than 2 allowed.
Face of integral back and sides.	Dull or eggshell	One allowed; not over $\frac{1}{2}$ inch.
	Exposed body	None over $\frac{1}{2}$ inch; not more than 2 allowed.
	Large blisters	Not more than 2 on either side or on back; a total of not more than 3.
	Unglazed fire check	None on back; one only allowed, which may be on either side.
	Spots, blisters, and pinholes	Not more than 3 on back or on either side; a total of not more than 6.
	Bubbles or specks	No segregation; a total of not more than 6.

GRADING RULES FOR OTHER VITREOUS CHINA PLUMBING FIXTURES

25. The grading rules for water-closet bowls shall apply to slop sinks, clinic sinks, and bidets.

26. The grading rules for and method of grading lavatories, pedestals, and legs shall apply to drinking fountains, manicure tables, and toilet tables.

27. All vitreous china plumbing fixtures not specifically mentioned in the foregoing shall take the grading rules for water-closet bowls.

MARKING AND LABELING

28. Water-closet bowls, tanks, tank covers, lavatories, and all other vitreous china plumbing fixtures shall bear the trade-mark or name of the actual manufacturer applied in such manner as to be permanent. It is recommended that no name, brand, or label other than that of the actual manufacturer shall be used on the ware.

29. "Regular selection" labels shall be used only on such ware as conforms to the requirements for "regular selection," as set forth in the grading rules. No label shall be used on ware which grades lower than "regular selection." Labels shall be applied only at the factory.

30. The following wording shall be used on labels for "regular selection" ware:

This is a high-class and valuable piece of vitreous china and should be handled as such. This piece has been classified as "regular selection" after a thorough inspection by competent and experienced men. The term "regular selection" does not mean that this article is without blemish. It is impossible to make vitreous china plumbing fixtures without flaws of some kind and these have not been overlooked in the grading of this article.

This piece has been graded in accordance with uniform grading rules adopted by the Sanitary Potteries in conjunction with the United States Bureau of Standards of the Department of Commerce.

31. Culls shall be marked by the maker with two parallel lines cut through the glaze into the body of the ware at the location (see fig. 1) recommended by the Manufacturers' Advisory Committee on Vitreous

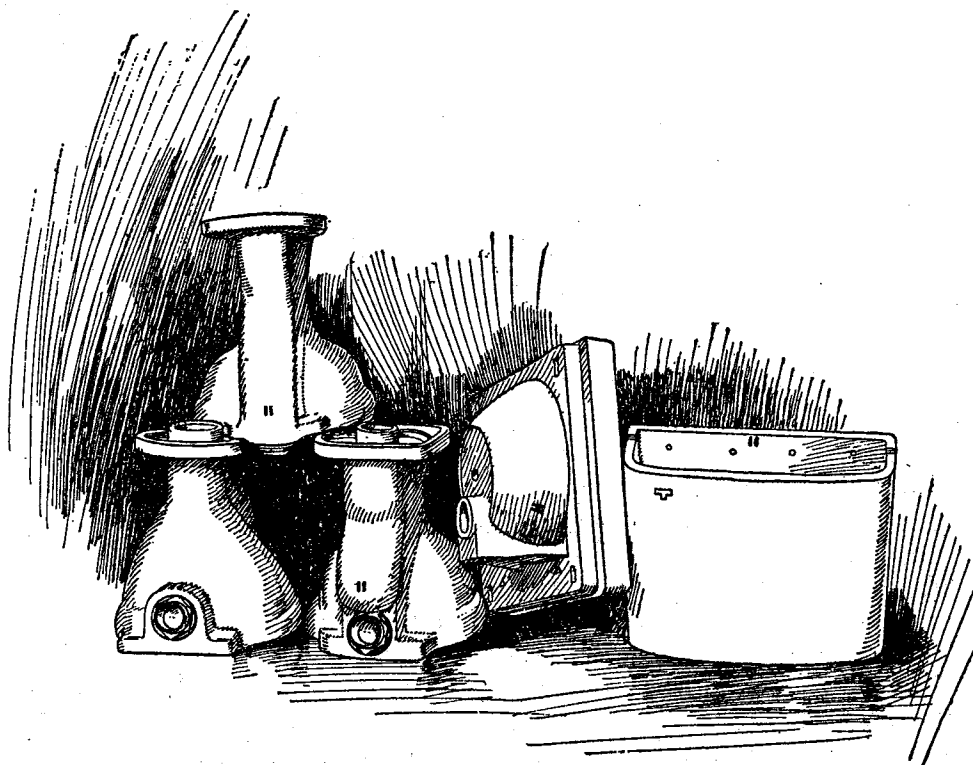


FIGURE 1.—Location and character of marking for culls

ous China Plumbing Fixtures. These cuts shall be filled with a bright-red varnish or enamel which is resistant to the action of hot water.

32. All crates containing "culls" shall be marked with two slashes of red on one end of the crate so as to be visible without tearing down stacks.

DIMENSIONAL STANDARDS

33. The standard size for spuds on all water-closet bowls shall be as follows: 2 inches for all closet bowls operated under low tanks; 1½ inches for all other installations.

34. Soap-dish depressions shall be used on all lavatories to and including the 24-inch size, but not on larger sizes.

35. Wherever soap-dish depressions are used on slabs of lavatories, they shall be located on the left-hand side as one faces the lavatory

and shall be approximately $3\frac{1}{4}$ inches long by $2\frac{1}{4}$ inches wide by $\frac{1}{8}$ inch deep at the deepest point, and shall drain into bowl.

36. Where not otherwise specified, a variation of 5 per cent from the dimensions indicated herein will be permitted.

37. Underlined dimensions in Figures 2 to 13, inclusive, are identical for all sizes and types of similar items.

38. The total thickness of lavatories at faucet or valve holes shall be not less than $\frac{1}{2}$ inch nor more than $1\frac{1}{4}$ inches.

39. The standard total thickness at outlet of lavatories with overflow shall be 2 inches. $\pm \frac{1}{4}$ inch.

40. The standard maximum projection of hood on overflow shall be $1\frac{1}{4}$ inches for all standard sizes of lavatories.

41. The standard measurement from center of "pop-up" waste opening on slab to inside edge of bowl for lavatories shall be $2\frac{1}{2}$ inches.

42. Supply pipes to floor for standard wash-down combinations are furnished 19 inches long.

STANDARD TYPES AND SIZES

43. The following types, items, sizes, and dimensions are recommended as standard for the industry. (See figs. 2 to 13, inclusive.) Other types, items, sizes, and dimensions are considered special.

44. The top contour of all 13-inch high juvenile water-closet bowls shall be the same as for regular bowls. (Smaller or baby bowls are considered special.)

WATER-CLOSET BOWLS AND TANKS

STAPLE FLOOR OUTLET SIPHON JET CLOSET WITH SILENCING CHAMBER:

- Top supply, regular bowl.
- Extended top supply, regular bowl.
- Top supply, extended lip.
- Extended top supply, extended lip.

STAPLE FLOOR OUTLET SIPHON JET CLOSET:

- Top supply, regular bowl (regular height).
- Extended top supply, regular bowl (regular height).
- Top supply, extended lip (regular height).
- Extended top supply, extended lip (regular height).
- Top supply, extended lip (juvenile height).

WALL HANGING SIPHON JET CLOSET:

- Top supply, extended lip.
- Back supply, extended lip.
- Side supply, extended lip.

STAPLE FLOOR OUTLET REVERSE TRAP CLOSET:

- Back supply, regular bowl (regular height).
- Back supply, extended lip (regular height).

STAPLE FLOOR OUTLET REVERSE TRAP CLOSET WITH JET:

- Back supply, regular bowl (regular height).
- Back supply, extended lip (regular height).

STAPLE FLOOR OUTLET SIPHON WASH DOWN:

- Back supply, regular bowl, 12-inch roughing (regular height).
- Back supply, regular bowl, 14-inch roughing (regular height).
- Back supply, regular, integral seat, 12-inch roughing (regular height).
- Back supply, regular, integral seat, 14-inch roughing (regular height).

STAPLE FLOOR OUTLET SIPHON WASH DOWN WITH JET:

Back supply, regular bowl (regular height).

WALL HANGING BLOW-OUT CLOSET:

Back supply, extended lip.

Side supply, extended lip.

Back supply, extended lip, integral seat.

Side supply, extended lip, integral seat.

LOW TANK WITH UPPER LEFT-HAND LEVER:

Small (approximately 6-gallon capacity).

Large (approximately 8-gallon capacity).

HIGH TANKS, WITH CENTER OUTLET AND OVER TOP SUPPLY, WHERE

USED, LEVER SHALL BE ON LEFT SIDE:

Small (approximately 3-gallon capacity).

Large (approximately 6-gallon capacity).

NOTE.—The above action eliminates all side supply water-closet bowls of the floor type and all wash-down water-closet bowls with extended lip.

LAVATORIES

45. It is recommended that all lavatories be made with an overflow; that standardized supply and waste punchings be limited (a) for two lavatory faucets and pop-up waste or chain-stay or combination fitting; (b) for combination fitting for integral nozzle and pop-up waste.

STRAIGHT FRONT LAVATORY:

20 inches by 18 inches, with back.

20 inches by 18 inches, without back.

24 inches by 20 inches, with back.

24 inches by 20 inches, without back.

27 inches by 22 inches, without back.

30 inches by 24 inches, without back.

ROUND FRONT LAVATORY:

20 inches by 18 inches, with back.

20 inches by 18 inches, without back.

ROUND FRONT CORNER LAVATORY:

17 inches by 17 inches, with back.

URINALS**STALL URINAL, WINGLESS.****PEDESTAL URINAL:**

Siphon jet, top supply.

Siphon jet, back supply.

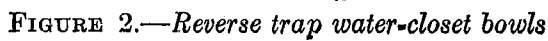


FIGURE 2.—Reverse trap water-closet bowls

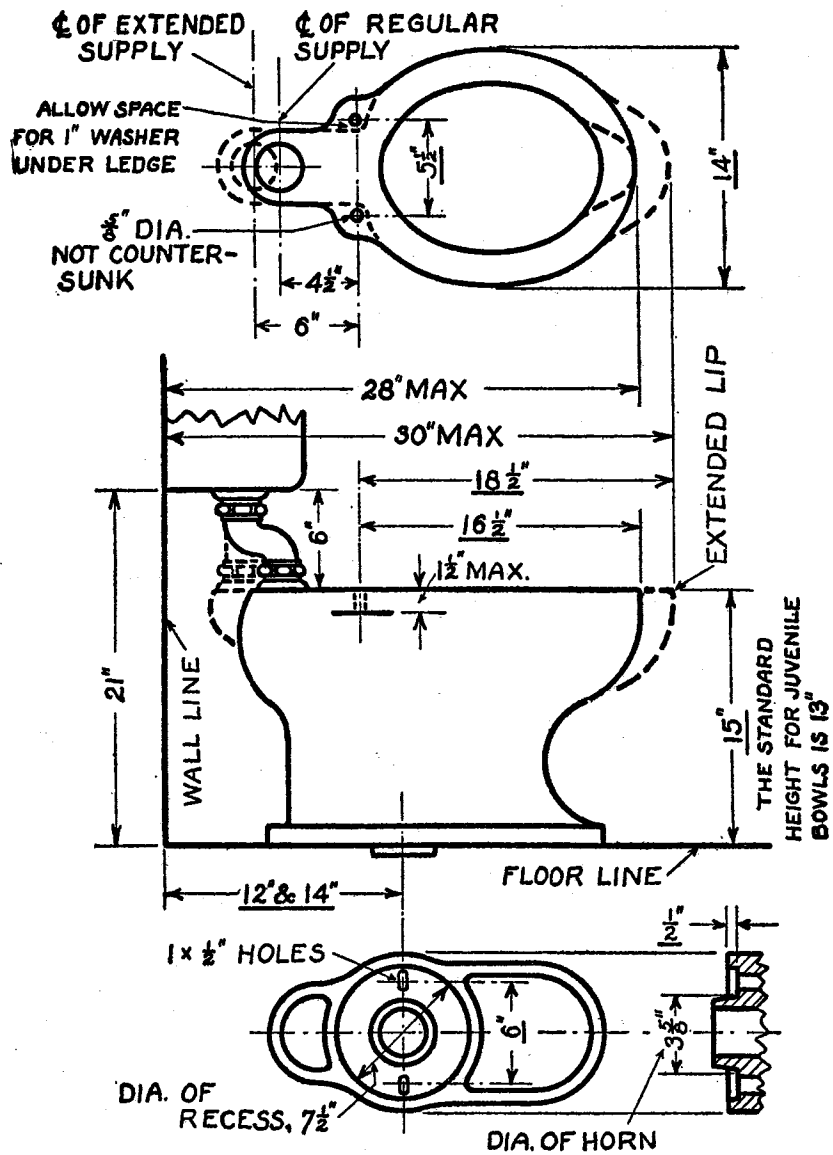


FIGURE 3.—Siphon jet water-closet bowls

107646°—30—3

ALLOW SPACE FOR 1" WASHER
UNDER LEDGE

$\frac{5}{8}$ " DIA.
NOT COUNTERSUNK

SUPPLY PIPES TO
FLOOR FOR STANDARD
WASHDOWN COMBINATIONS
ALL FURNISHED 19" LONG.

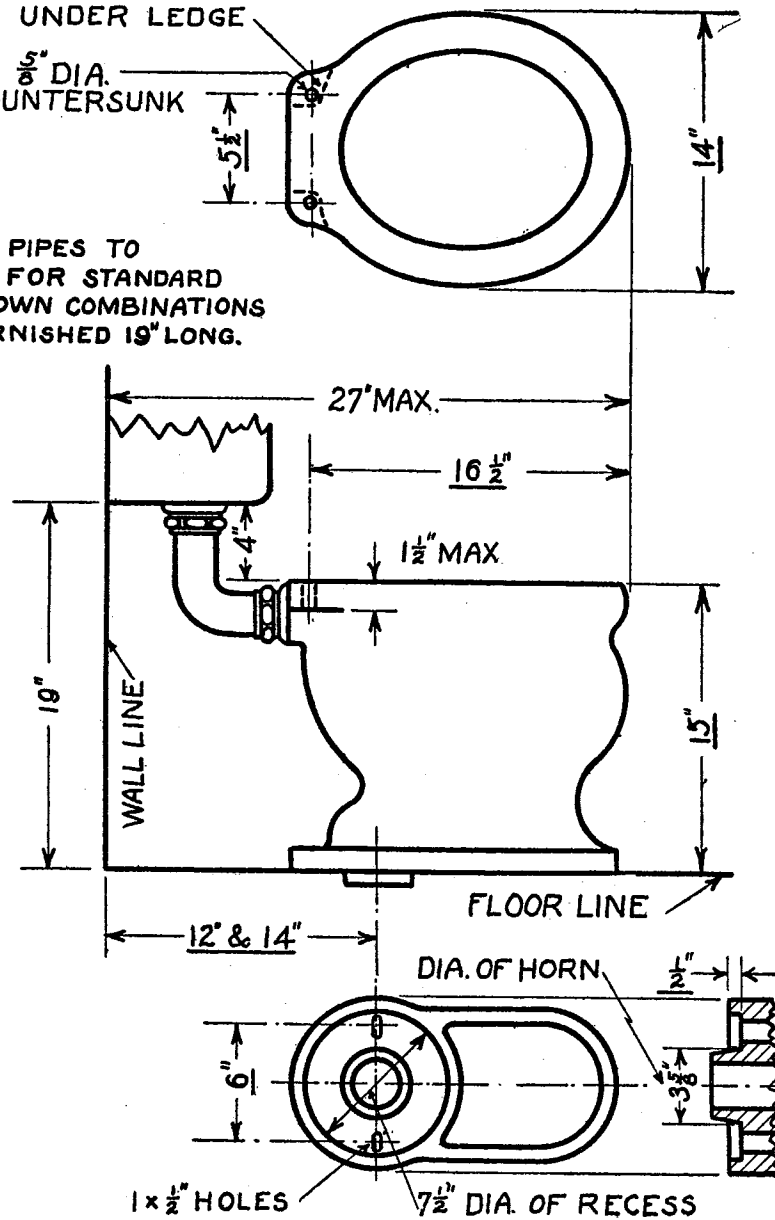


FIGURE 4.—Wash-down water-closet bowls

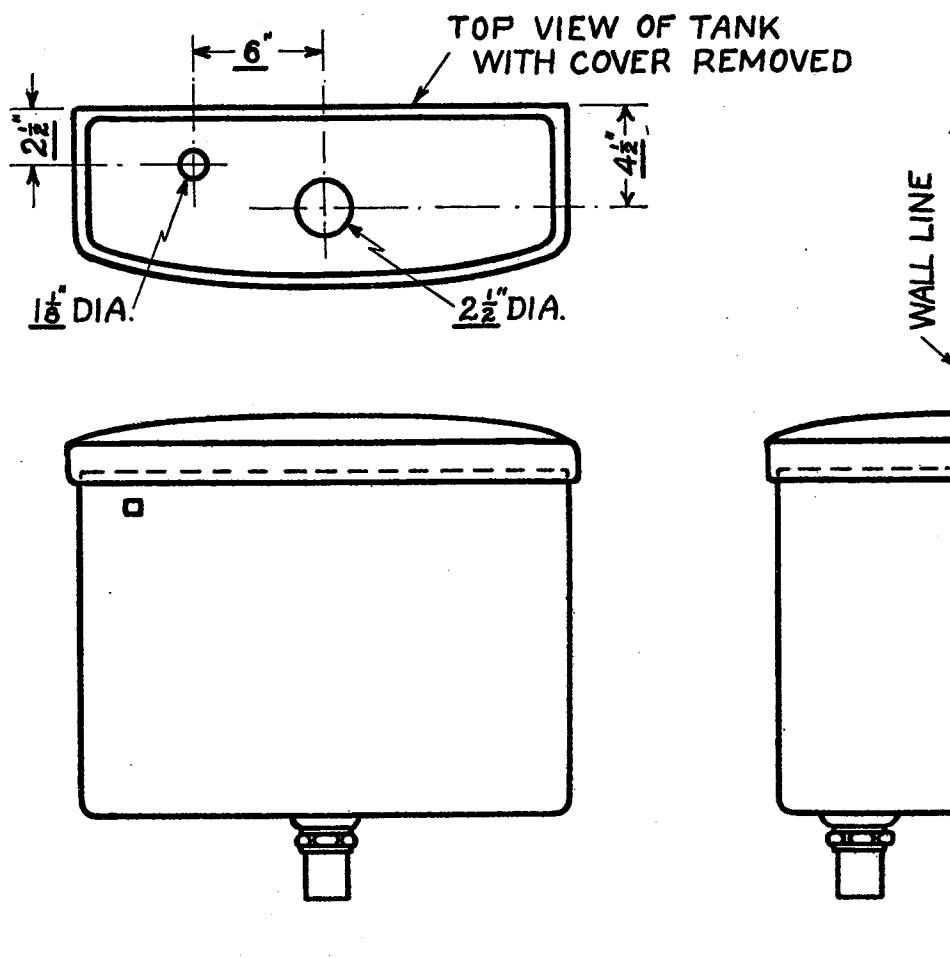


FIGURE 5.—Low tanks

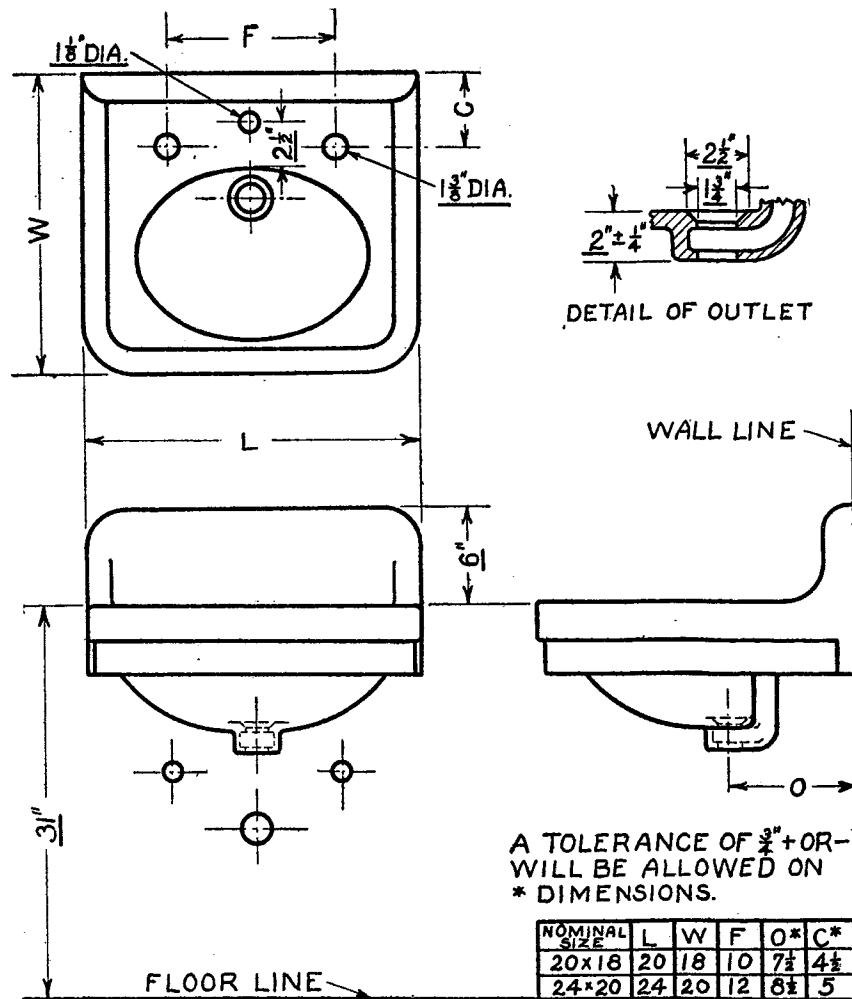


FIGURE 6.—Straight front lavatories, with back

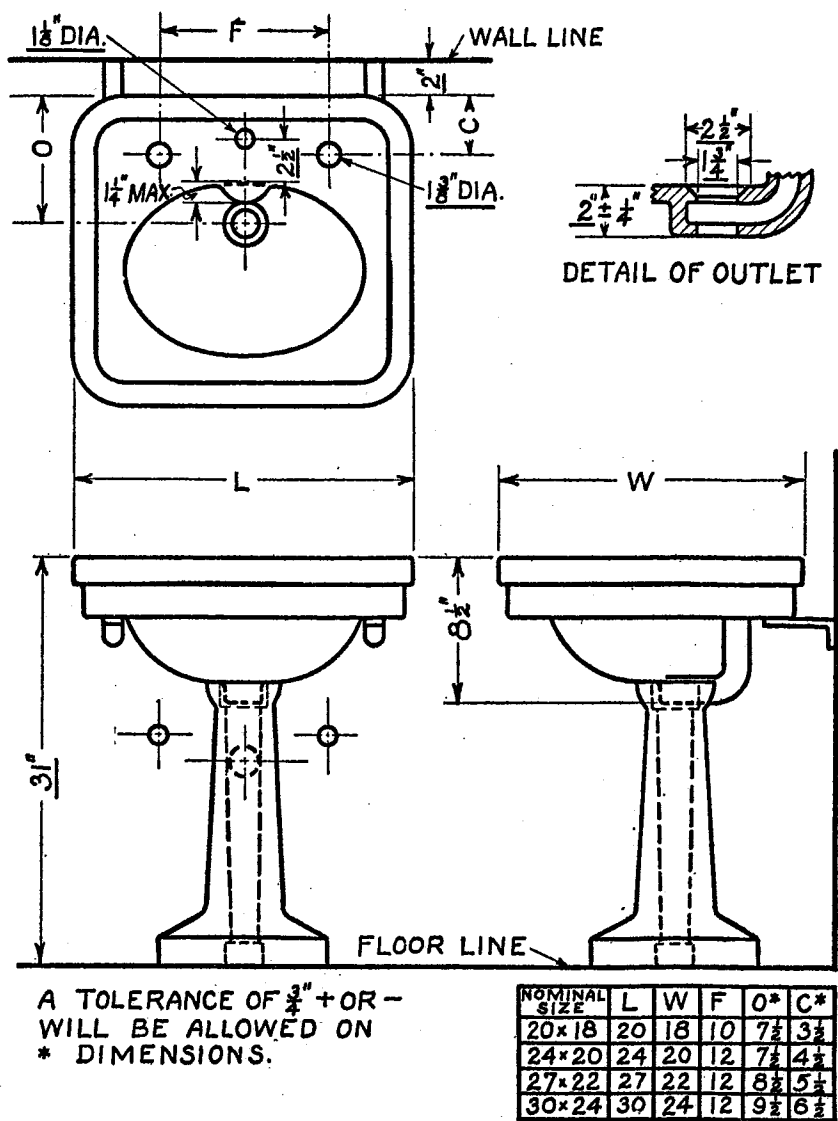


FIGURE 7.—Straight front lavatories, without back

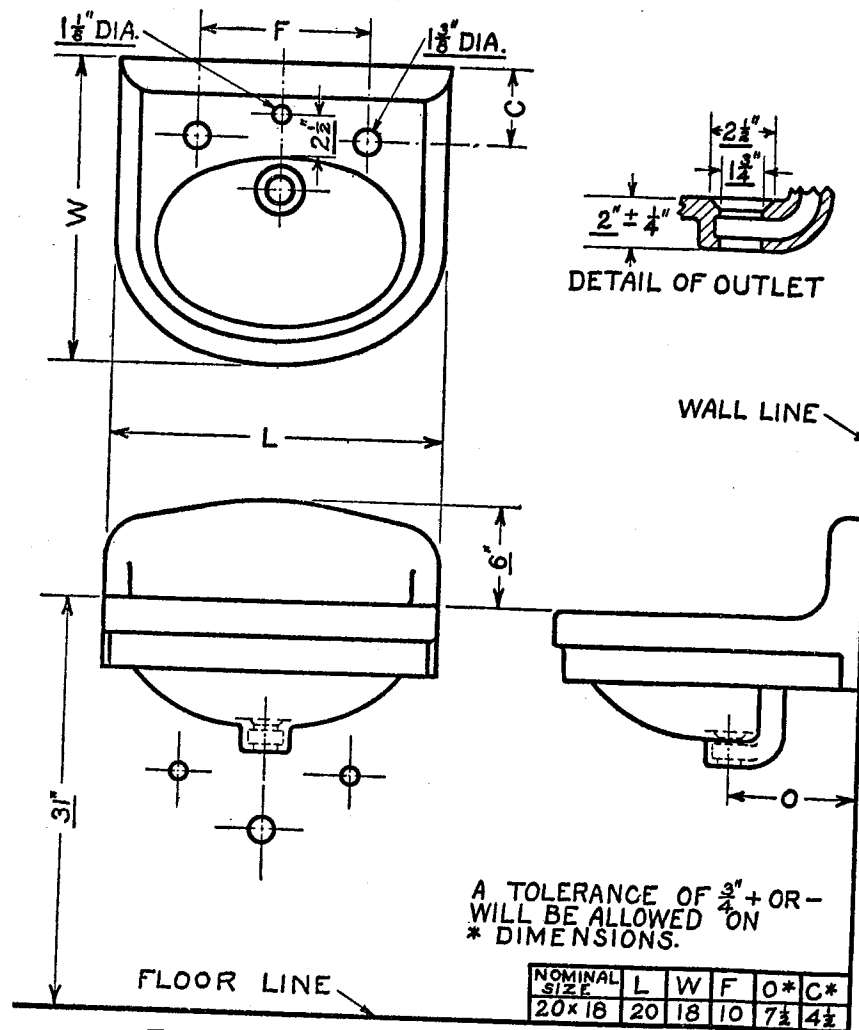


FIGURE 8.—Round front lavatories, with back

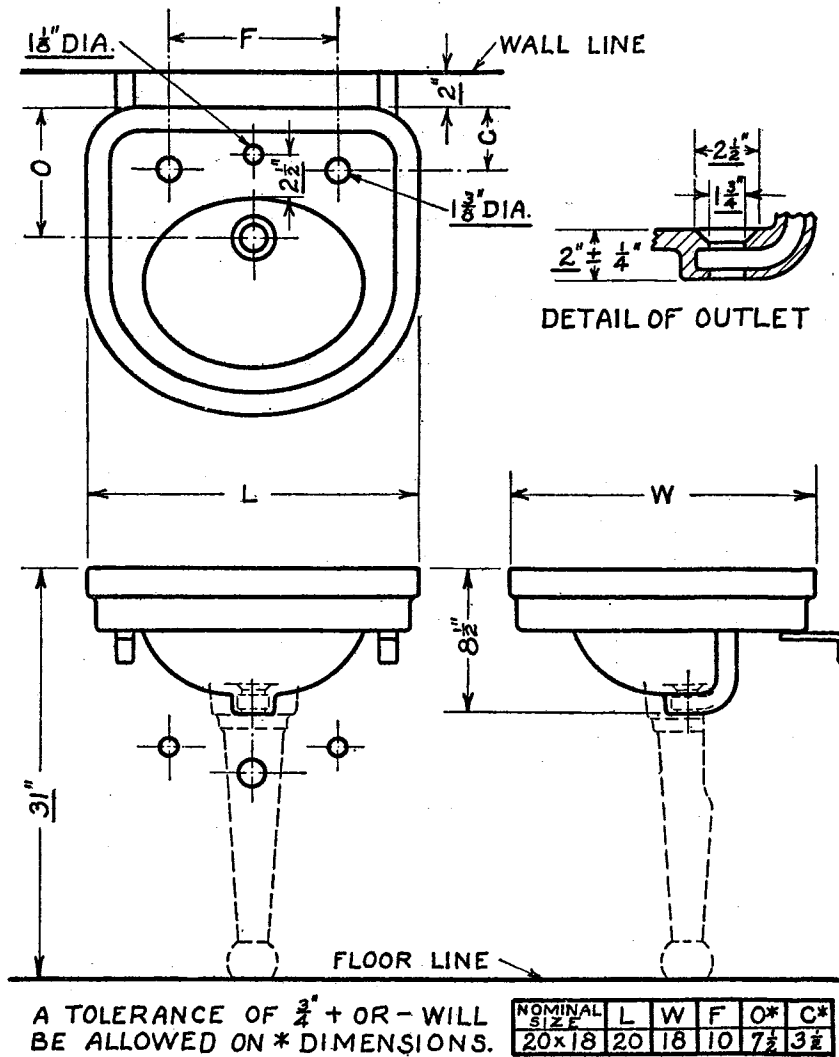


FIGURE 9.—Round front lavatories, without back

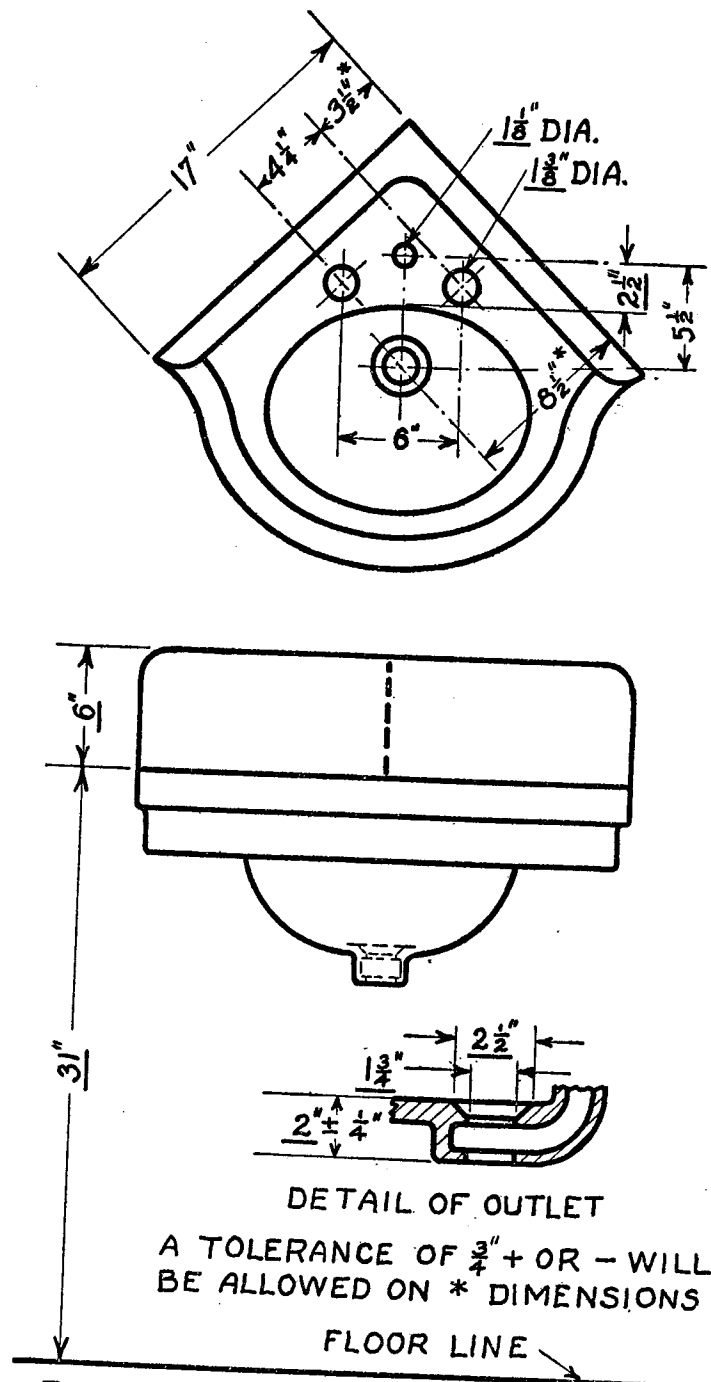


FIGURE 10.—Round front corner lavatory, with back

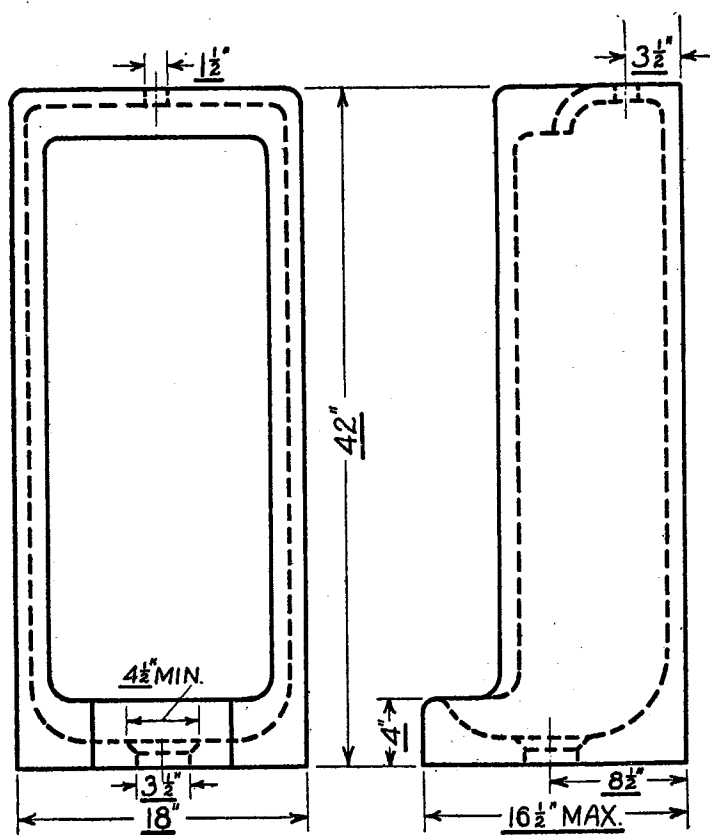


FIGURE 11.—Urinal stalls

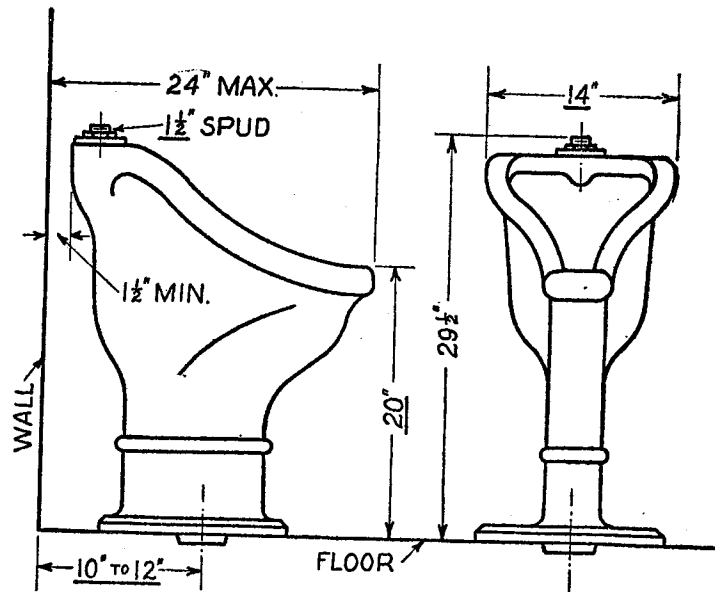


FIGURE 12.—Top supply pedestal urinal

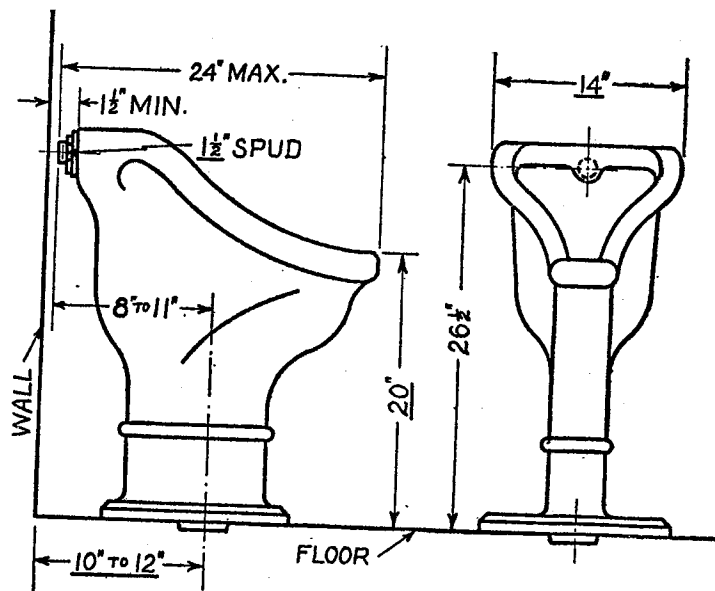


FIGURE 13.—Back supply pedestal urinal

HISTORY OF PROJECT

In January, 1925, the division of simplified practice of the Department of Commerce was requested by a group of manufacturers of sanitary china plumbing fixtures to assist in an effort to secure a more uniform grading of this type of ware. A committee was appointed to meet with representatives of the division for a preliminary discussion. Later, due to the technical nature of the subject, the Bureau of Standards, on request, assigned P. H. Bates, advisor on ceramic materials, and I. J. Fairchild to assist the division.

Several preliminary conferences were held in Washington, Trenton, and Pittsburgh during 1925 during which the Manufacturers' Advisory Committee on Vitreous China Plumbing Fixtures was organized to facilitate the work, with Raymond E. Crane as chairman, George E. Hoffman as vice chairman, and I. J. Fairchild as secretary. Five meetings of the advisory committee, numerous subcommittee meetings, and a survey of variety conducted by F. W. Donahoe were required to formulate and arrange the recommendations in an acceptable manner. At the May, 1926, meeting the advisory committee resolved that "the secretary compile all recommendations of the advisory committee and submit them to the division of simplified practice with a request that a general conference be called for September 22, 1926, at the Department of Commerce."

GENERAL CONFERENCE, 1926

At the general conference, held at the Department of Commerce September 22, 1926, H. R. Colwell, of the division of simplified practice, stated that the Manufacturers' Advisory Committee on Vitreous China Plumbing Fixtures had prepared tentative recommendations which would be used as a basis for discussion, the object being to adopt these standards in full or in part and following written acceptance to incorporate them as a part of the Elimination of Waste Series.

George E. Hoffman, vice chairman of the advisory committee, explained the purpose of the recommendations.

A. M. Maddock read the tentative recommendations dated July 20, 1926, at the same time calling attention to certain subsequent modifications recommended by the advisory committee.

A general discussion of the recommendation followed, and after making some changes the conference adopted the simplified practice recommendation, to become effective October 1, 1926, subject to a revision by the standing committee after one year.

REAFFIRMATION AND REVISION

At the September, 1928, meeting of the advisory committee Simplified Practice Recommendation No. 52 was reaffirmed for one year from October 1, 1928, since the suggestions for revision were not thought to be of sufficient import to warrant reprinting of the pamphlet.

Advisory committee meetings were held in May and September, 1929. At the September, 1929, meeting the committee recommended reprinting Simplified Practice Recommendation No. 52 as Commercial Standard CS20-30, to include all of the revisions adopted. Following approval by the standing committee the recommended com-

mercial standard was referred to all branches of the industry for written acceptance without the formality of a second general conference. Sufficient written acceptances were received to make the commercial standard effective as of March 3, 1930.

STANDING COMMITTEE

The following standing committee was appointed to consider annually any comments or suggestions as to changes in the standard in order that it may be kept continuously in accord with the desires of the industry and advance in the art:

A. M. MADDOCK, chairman, Thos. Maddock's Sons Pottery.
 G. C. KALBFLEISCH, Standard Sanitary Manufacturing Co.
 GEORGE E. HOFFMAN, Crane Co.
 R. L. OTTKE, Standard Sanitary Manufacturing Co.
 R. T. ROCK, National Association of Master Plumbers.
 W. J. SPILLANE, James B. Clow & Sons.
 C. W. OWEN, Eastern Supply Association.
 LEROY KERN, American Institute of Architects.
 BENJAMIN CADBURY, National Association of Brass Manufacturers, and Eastern Supply Association.
 JERE. L. MURPHY, National Association of Master Plumbers.
 H. R. COLWELL, Bureau of Standards.
 I. J. FAIRCHILD, Bureau of Standards.

CERTIFICATION PLAN

Since no second general conference of the producers and users of vitreous china plumbing fixtures was held, no opportunity has, as yet, been presented to this industry for the indorsement of the so-called certification plan. It is believed, however, that a brief description of this plan may be helpful in the event of its future consideration.

The certification plan as applied by the National Bureau of Standards to commercial standards consists in the compilation and distribution of lists of manufacturers who are willing, when requested to do so, to certify to purchasers that products supplied by them comply with all the requirements and tests set forth in nationally recognized commercial standards. The plan is also applied to selected Federal specifications.

These lists are available on request to individual consumers, consumer groups, companies, and, in fact, to any prospective purchasers, for their guidance.

The benefits now derived from the use of specifications by large consumers are thus made immediately available to the small consumer, with incidental advantage to the larger consumers of convenience in ordering and accepting material with fewer laboratory tests, and of lowering the price by reason of broadening the field of supply. The manufacturer also benefits from the well-known economies accompanying "mass production."

The lists of manufacturers "willing to certify" to the quality of certain commodities are made by corresponding with, as nearly as possible, all the manufacturers of that product and listing only those who signify their willingness to certify to the purchaser, when requested to do so, that the commodities delivered actually comply with the commercial standard.

Obviously, the purchaser making use of the lists of willing-to-certify manufacturers will select therefrom such manufacturers as are known (or assumed) by him to be reliable.

The trend toward the purchase of materials of certified quality from sources shown on such willing-to-certify lists supplies added incentive to standardization on the part of other producers, and thus the benefits of the certification plan will be felt by purchasers, either directly or indirectly, whether or not they make use of the plan themselves.

COMMERCIAL STANDARDS SERVICE

Industry has long sensed the need for a wider application and use of specifications developed and approved by naturally recognized organizations. To assist these bodies and the producers and consumers in securing this result and as a natural outgrowth of the movement toward elimination of waste through simplified practice, the National Bureau of Standards has set up a procedure under which specifications, properly indorsed, may be printed as official publications of the Department of Commerce and promulgated as "commercial standards." This service parallels that of simplified practice in many respects, and is available only upon request.

Broadly speaking, the aim is to continue the same character of cooperative service in this field that is being rendered in simplification. The division of trade standards is not designed to act as a standardizing body, nor will it engage in the preparation of specifications. Its service is mainly promotional in character, since its chief mission is to get behind a standard or a specification which any branch of industry may want to promulgate on a nation-wide basis; to determine its eligibility for promulgation; to publish and broadcast it in the event the prerequisites of procedure have been met, including a satisfactory majority acceptance; to facilitate the application of the certification plan for the assurance and convenience of the purchaser; to provide means for periodic audits of adherence; and to cooperate with the Bureau of Foreign and Domestic Commerce in determining the desire of industry relative to translation and promulgation of such specifications as a basis for foreign commerce.

In general, it may be said that a simplification covers types, sizes, and varieties of a commodity which are retained by industry on the basis of demand, whereas a commercial standard establishes definite requirements as to grade, quality, or dimensional tolerances in addition to any limitation of variety desired and accepted by the industry.

ORGANIZATION AND DUTIES OF STANDING COMMITTEE

In order to carry on the aims and desires of the industry in the standardization of their product, a standing committee is appointed at the general conference. This committee consists of members from each division of the industry, namely, producers, distributors, and consumers, and thus reflects the well-balanced viewpoint of all concerned.

The members of the committee receive all suggestions regarding the commercial standard and consider its revision in the event that such action is desirable and mutually beneficial.

If the commercial standard does not warrant revision, it is reaffirmed in its existing form but if any important changes are found desirable, their adoption is recommended by the committee, where-

upon the industry is again solicited for written acceptance of the standard in its revised form.

The committee is in effect a centralizing agency for criticisms and comments regarding the commercial standard and is charged with the responsibility of recommending revisions to keep the standard abreast with current industrial practice.

The proper functioning of the committee requires that, when necessary, its members be willing to attend meetings held at some central place, although in many cases it will be possible to conduct the work by correspondence.

When any deceptions in reference to the commercial standard are reported to the standing committee, it applies moral suasion or such other corrective measures as seem desirable. The Department of Commerce has no "police power" to compel adherence, therefore, it is incumbent upon the standing committee to do all in its power to encourage all divisions of the industry to follow the provisions of the commercial standard and contribute in every way possible to its general adoption and usefulness.

YOUR COOPERATION

As a producer, distributor, or consumer of some of the commodities for which commercial standards have already been established, you are in a position to avail yourself of the benefits arising from the use of quality standards and incidentally to add impetus to this method of eliminating waste.

The first step is a declaration in favor of the standard by recording your intention to adhere, as closely as circumstances will allow, to the standards for those products which you may buy or sell.

The receipt of your signed acceptance will permit the listing of your company in new editions of the commercial standards that you accept.

You will, of course, want to examine any commercial standards before signing a formal acceptance. The National Bureau of Standards will, therefore, furnish a copy of any standard under consideration for acceptance. To facilitate this procedure, a list appears on page 28 that may be checked and mailed to the Division of Trade Standards, Bureau of Standards, Washington, D. C. The publications may also be secured singly or in quantities at a nominal price from the Superintendent of Documents, Government Printing Office, Washington, D. C. Prices will be furnished upon request.

The acceptance of a commercial standard is an entirely voluntary action and applies to the production, sale, and use of stock items. It is not meant to interfere with the manufacture or sale of special sizes and types sometimes required.

Trade associations and individual companies often distribute large numbers of the printed standard for the information and guidance of their members or customers. In such cases it is possible to extend the scope and degree of adherence by urging each recipient to send in an acceptance, bearing in mind that the practical value of any standardization is measured by the observance it receives.

An acceptance form for the commercial standard herein covered is included on page 25.

ACCEPTANCE OF COMMERCIAL STANDARD

Please sign and return this sheet to Division of Trade Standards,
Bureau of Standards, Washington, D. C.

Date -----

DIVISION OF TRADE STANDARDS,
BUREAU OF STANDARDS,
Washington, D. C.

GENTLEMEN: We, the undersigned, do hereby accept the original draft of the commercial standard as our standard practice in the {production¹
distribution¹} of staple vitreous china plumbing fixtures, beginning -----, and will use
(Date)

our best efforts in securing its general adoption.

To permit intelligent review of the effectiveness of the commercial standard every year by an accredited committee of all interests, working in cooperation with the Department of Commerce, we plan to supply all data, upon request, which may be necessary for the development of constructive revisions. It is understood that any suggested modifications will be submitted as soon as formulated, and shall not be promulgated until accepted in form similar to this recommendation.

(Cut on this line)

Signed -----
(Kindly typewrite or print the following lines:)

Title -----

Company -----

Street address -----

City and State -----

We are members of the following associations or other organizations interested in the production, sale, or use of staple vitreous china plumbing fixtures:

¹ Please designate which group you represent by drawing lines through the other two. In the case of related interests, trade papers, colleges, etc., desiring to record their general approval, the words "in principle" should be added after the signature.

TO THE ACCEPTOR

In signing the acceptance blank, please bear the following points clearly in mind:

1. *Adherence.*—The Department of Commerce has no regulatory powers to enforce adherence to the commercial standards. Instead, this waste-elimination program is based on voluntary cooperation and self-government in industry. To make this specific standardization operate as a satisfactory example of self-government it is highly desirable that it be kept distinct from any plan or method of governmental regulation or control. It will be successful according to the degree to which manufacturers, distributors, and purchasers adhere to its terms and conditions.

2. *The industry's responsibility.*—The department cooperates only on the request of the industry and assumes no responsibility for industrial acceptance or adherence. This program was developed by the industry on its own initiative. Its success depends wholly on the active cooperation of those concerned.

3. *The acceptor's responsibility.*—You are entering into an entirely voluntary arrangement, whereby the members of the industry—the distributors and consumers of the product, and others concerned—hope to secure the benefits inherent in commercial standardization. Those responsible for this standard realize that instances may occur in which it will be necessary to supply or purchase items not included therein. The purpose is, however, to secure wider support for nationally recognized standards, covering grade, quality, and other characteristics of products. Consumers can make the program a success if, in their purchasing, they will make a definite and conscientious effort to specify in terms of this commercial standard.

4. *The department's responsibility.*—The function performed by the Department of Commerce is fourfold: First, to act as a referee to insure adequate consideration of the needs of all interests; second, to supply such assistance and advice in the development of this program as past experience with similar programs may suggest; third, to solicit and record the extent of adoption and adherence to the standard; and fourth, to add all possible prestige to this standardization movement by publication and promulgation if and when it is adopted and accepted by all elements directly concerned.

REQUEST FOR COMMERCIAL STANDARDS

Date

DIVISION OF TRADE STANDARDS,
BUREAU OF STANDARDS,
Washington, D. C.

GENTLEMEN: The undersigned wishes to examine the commercial standards checked on the reverse side of this page, with a view toward accepting them as our standard of practice in the production, distribution, or consumption of the standardized lines.

(Cut on this line)

Signed

(Kindly typewrite or print the following lines:)

Title

Company

Street address

City and State

COMMERCIAL STANDARDS

CS. No.	Item	CS. No.	Item
1-28.	Clinical thermometers.	12-29.	Domestic and industrial fuel oils.
2-29.	Surgical gauze (preparation postponed).	13-30.	Dress patterns.
3-28.	Stoddard solvent.	14- .	Boys' blouses, waists, shirts, and junior shirts (in preparation).
4-29.	Staple porcelain plumbing fixtures. (all-clay)	15-29.	Men's pajamas.
5-29.	Steel pipe nipples.	16-29.	Wall paper.
6-29.	Wrought-iron pipe nipples.	17-30.	Diamond core drill fittings.
7-29.	Standard-weight malleable-iron or steel screwed unions.	18-29.	Hickory golf shafts.
8-29.	Plain and thread plug and ring gage blanks (in preparation).	19-30.	Foundry patterns of wood.
9-29.	Builders' template hardware.	20-30.	Staple vitreous china plumbing fixtures.
10-29.	Brass-pipe nipples.	21- .	Interchangeable ground-glass joints (in preparation).
11-29.	Regain of mercerized cotton yarns.	22- .	Builders' hardware (nontemplate) (in preparation).